



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,800	09/08/2003	Eric C. Peters	A1992007DC2	1582

26643 7590 01/12/2009  
OLIVER STRIMPEL, PATENT COUNSEL  
AVID TECHNOLOGY, INC.  
ONE PARK WEST  
TEWKSBURY, MA 01876

EXAMINER
----------

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
----------	--------------

2621

MAIL DATE	DELIVERY MODE
-----------	---------------

01/12/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/657,800

**Applicant(s)**

PETERS ET AL.

**Examiner**

JAMES A. FLETCHER

**Art Unit**

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 16-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurst (4,523,227) in further view of Jayant et al (5,559,900), and in further view of Crus et al (EP 360387)).

**Regarding claims 16 and 18**, Hurst discloses an apparatus and method for compressing video information comprising:

- means and step for receiving data indicative of whether consecutive images in the video information are redundant (Col 6, lines 9-11 "a motion sensor is interrogated constantly thereafter in a search for substantially identical frames");
- means and step responsive to the received data for removing at least one of the substantially redundant consecutive images (Col 8, lines 11-14 "FIG. 2(c) represents the action of the synchronizer when two substantially identical

frames are found, and shows how this results in a motion-discontinuity-free frame drop");

Hurst discloses the purpose of removing frames as being compression of the video signal (Col 1, lines 37-40 "a system that prevents a loss of revenue to broadcasters and/or loss of artistic integrity of a program by enabling time changing (lengthening or shortening) of a prerecorded program"), but does not specifically disclose further means and step for compressing the video information without the substantially redundant consecutive images

Jayant et al teach compression of video signals (Abstract, "Compression of signals is achieved through a simple decision of whether or not to encode certain frequency bands" and Col 8, lines 5-10 "that the principles of this invention apply quite well to higher dimensional signals. With video signals, for example (which can be thought to be two dimensional), the only change that needs be made is in filter bank 100, in inverse transform circuits 130 and 230, and in the perceptual model circuit 110"), providing the user with a signal that is perceived to be of high quality, but with a reduction in the amount of data required for storage or transmission.

As taught by Jayant et al, compression of video signals was well known at the time of the invention, providing the user with bandwidth economy, and would have been an obvious modification of Hurst by one of ordinary skill in the art.

Hurst is silent regarding a means and step for storing the compressed video information and the data indicative of the substantially redundant consecutive images.

Crus et al teach the storage of extra data (metadata) with the main data (Abstract: "The meta-data descriptions of the constraints are stored in the form of objects called relationship descriptors"). The Examiner deems the claimed "data indicative of the substantially redundant consecutive images" to be meta-data, and therefore its storage with main data is known to those of ordinary skill in the art, and would therefore be an obvious modification of Hurst.

The Examiner further takes official notice that storage of compressed video information is notoriously well known to those of skill in the art, and would therefore also be an obvious modification of Hurst.

**Regarding claims 17 and 19**, please see Examiner's remarks regarding claims 16 and 18.

4. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorricott et al (5,353,119), in further view of Music et al (4,847,677)

**Regarding claims 20 and 21**, Dorricott et al disclose a method and apparatus for decompressing stored and compressed digital video information having a frame rate corresponding to 24 frames per second (Col 58, lines 47-35 "the tapes on the VTRs 11, 14 have a number of sequential positions or slots for frames...in the case of recording 1 hour of frames in 34Hz 1:1 format"), wherein the compressed digital video information was generated by eliminating substantially redundant consecutive images in

uncompressed digital video information originating from a video signal having a frame rate of 29.97 frames per second (Col 10, lines 26-30 "the output signal from the production system in 24 frame/s 60 field/s pulldown format can be converted to 24 frame/s progressive scan format employing a drop field technique which drops the phantom fields"), wherein the compressed digital video information has associated information indicating where the substantially redundant consecutive images were located in the uncompressed digital video information (Col 10, lines 39-42 "producing from the 24 frame/s progressive scan format digital signal the 60 field/s pulldown format video signal having pairs of fields representing portions of the same frame and the phantom fields"), the method comprising:

- means and step for receiving the associated information indicating where the substantially redundant consecutive images were located in the uncompressed digital video information (Col 10, lines 39-42 "producing from the 24 frame/s progressive scan format digital signal the 60 field/s pulldown format video signal having pairs of fields representing portions of the same frame and the phantom fields");
- means and step for generating a video signal having a frame rate of 29.97 (Col 10, line 66 – Col 11, line 1 "The method may further comprise the step of converting the combined pulldown format digital video signal to at least one of the following formats:...NTSC format") from the decompressed video signal by reintroducing the substantially redundant consecutive images according to the received information (Col 10, lines 39-42 "producing from the 24 frame/s

progressive scan format digital signal the 60 field/s pulldown format video signal having pairs of fields representing portions of the same frame and the phantom fields”).

Dorricott et al are silent regarding digital compression. Music et al teach compression and decompression of digital video signals (Col 2, lines 34-35 “a method and system for compressing digital color video data” and lines 48-49 “a method and system of decompressing color video data”).

As taught by Music et al, compression and decompression of video data is well known, providing the user with acceptable video quality at reduced storage and transmission requirements over uncompressed signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dorricott et al in order to provide for compression and decompression of the digital video information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. FLETCHER whose telephone number is (571)272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAF  
19 December 2008

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621